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Article

Comparison of LCL Handling Charges at the Container Freight Station (CFS) Line 1 and Line 2 Depots

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ABSTRACT

Less than Container Load (LCL) is defined as cargo whose volume does not fill a full container and its movement requires allocation of LCL handling charges. This study aims to conduct a comparative study of LCL handling charges between Line 1 Container Freight Station (CFS) facilities and Line 2 depot facilities. Differences in operational locations and customs status between Line 1 CFS and Line 2 depots are predicted to cause variations in cost structures that directly affect the efficiency of the logistics supply chain. This study has three main objectives: identifying LCL service procedures, analyzing the development of LCL throughput volume for the period 2021–2024, and comparing LCL handling charges between the two locations. The methodology used is quantitative with a descriptive approach. Data were obtained through observation, interviews, and document studies at the Commercial and Business Development Department. Data analysis involved calculating the Compound Annual Growth Rate (CAGR) to measure volume trends and descriptive comparative analysis to evaluate cost structures. The results show that LCL services are implemented through three main Job Orders: Receiving Service LCL (RSL), MIM, and Delivery Cargo. The LCL throughput trend shows a positive increase with a CAGR of 17.996%. Furthermore, the cost analysis results show that the Line 2 depot charges a higher LCL handling charge, which is around 26%–30% compared to the Line 1 CFS. Thus, the Line 1 CFS is proven to provide a competitive advantage for service users through a more efficient LCL charge handling structure.

1. Introduction

Indonesia's logistics and maritime transport sector is growing in line with increasing international trade activity, with ports playing a key role in the distribution network, particularly for handling import and export containers. Globally, maritime transport is the backbone of world trade, carrying more than 80% of traded goods (by volume) (UNCTAD, 2025). Therefore, port service efficiency is a key factor: logistics performance and trade facilitation (including service efficiency and delivery timeliness) are components measured in international benchmarks such as the Logistics Performance Index (LPI) (World Bank, 2023). The implication is that improving port service efficiency will have a direct impact on the logistics cost structure and competitiveness of service users (World Bank, 2023).

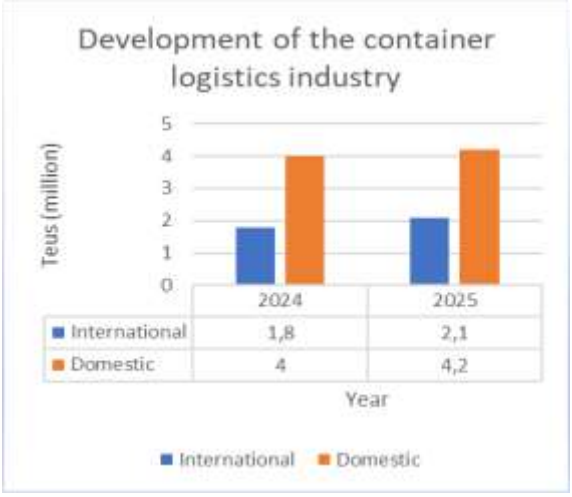

Figure 1. Development industry logistics container
Source: Pelindo Website

Based on sourced data from the website of PT Pelabuhan Indonesia (Persero), the current container national in the 2024–2025 period shows trend increase in container volume international increase from 1.8 million TEUs to 2.1 million TEUs or of ±16.7%, while container domestic experience increase from 4.0 million TEUs to 4.2 million TEUs or by 5%. Increase in container volume This signify the more height intensity activity logistics at the port, which is direct impact on utilization terminal facilities and systems service port.

Along with increasing current container said, complexity handling loads also increase, especially on the type service container certain. One of the services that require handling special is *Less than Container Load* (LCL), is system delivery goods with a load volume that is not fulfil capacity One container full. LCL characteristics involving Lots owner goods in One container causing the handling process more complex compared to with *Full Container Load* (FCL), both from side operational, administrative, and time service.

Therefore that, LCL activities require facility special in the form of *Container Freight Station* (CFS) that functions as place consolidation and deconsolidation load. Optimization CFS services become the more crucial in the middle increase in container volume, because inefficiency LCL handling has the potential cause delay current goods, upgrades handling costs, as well as pressure to performance operational terminal in general overall.

In the system operational port, LCL handling can done on more from One location operational, both within area harbor both inside and outside area harbor main. Difference location handling the impact on variation procedure services, components costs, as well as time handling goods, which in the end affect the LCL handling charge that must be borne by the user service.

LCL *handling charge* is one of the component cost significant logistics Because covers various activities, such as demolish loading, stacking, moving goods, administration, and supervision customs. Structure LCL *handling charge* can be different depending on location and facilities handling used. Differences the potential cause variation burden sufficient cost big for users service as well as influence efficiency distribution logistics.

In practice, although there is facility LCL handling which is theoretical offer efficiency LCL *handling charge*, part users service still choosing alternative location handling other. Conditions This show that choice location LCL handling is not only influenced by aspects costs, but also by limitations terminal capacity and condition operational harbor in a way overall.

In operation port, at a harbor there is a functioning container terminal as place hoarding temporary goods, both those on line 1 and line 2. *Container Freight Station* (CFS) located on line 1 functions as facility main for activity handling and storage temporary LCL containers located in area port. Meanwhile that, line 2 depot is used as

facility external support area ports, in particular for activity transfer container to field accumulation alternative as impact from increasing *Yard Occupancy Ratio* (YOR) which has been pass the ideal operational threshold for container terminals, which is above 65 %. The difference function and location operational between CFS line 1 and depot line 2 cause existence difference structure service as well as component costs incurred in the process of handling LCL containers, so that potential cause difference LCL *handling charge that* must be borne by the user services. Based on description said, research This arranged with title **"comparison of LCL handling charges at the container freight station (CFS): line 1 and line 2 depots".**

2. Literature Review

2.1 Harbor

The port consists of from land and surrounding waters with certain limits as place activity government and activities the economy used as place boat lean, anchor, rise and fall passengers and/ or demolish fit equipped items with facility safety shipping and activities support harbor as well as as place displacement between fashion transportation (Law 17 of 2008). The port holds role important in the world of transportation, in particular transportation sea, because harbor is door entering a region or country. Ports can in the form of harbor cargo, port passengers, and combinations between harbor cargo and passengers.

2.2 Container Terminal

Container terminal is vital part of system logistics functioning port as place ongoing activity demolish loading, stacking and distribution container. Facilities This play a role important in ensure smoothness current goods as well as efficiency cost logistics national. Container terminals are also becoming knot main in connectivity logistics interregional, which has an influence direct to improvement Power competition economy national (Triningsih, 2024).

In a way operational, container terminal consists of on a number of element main like field stacking, stuffing and stripping area, *Container Yard* (CY), and equipment demolish fit like *quay crane* and *rubber tyred gantry* (RTG). Terminal effectiveness is measured through indicator performance operational, including time Wait boat *(waiting time),* time mooring *(berthing time),* and productivity demolish fit *(throughput)* which becomes size efficiency port (Syafrizal & Ramadhan, 2023).

2.3 Line 1 and Line 2

In the system operational ports in Indonesia, division of activity areas harbor known with term line 1 and line 2. These two areas own role important in support effectiveness current goods as well as supervision customs in the region harbor. Based on Circular Letter Directorate General of Taxes Number SE-37/PJ.43/1998, line 1 is defined as an area or dock place goods lowered direct from ship and done activity accumulation early. Meanwhile that, line 2 is the area where accumulation continuation, namely location where the goods are from line 1 moved for saved temporary before go out from area port (Directorate General of Taxes, 1998). The division of the area functioning for creating governance current structured goods as well as ensure all over activity be under supervision Directorate General of Customs and Excise (DJBC) as authority customs.

Based on Directorate Performance Report General of Customs and Excise (2022) and results *Time Release Study* (TRS) 2022, optimization strategy transfer goods from line 1 to line 2 becomes one of the important steps in speed up the logistics process national. The study shows that utilization of line 2 area as location accumulation advanced contribute to subtraction *dwelling time* and density field congestion at the main terminal. With existence transfer part container to line area 2, port capable maintain smoothness current logistics without lower effectiveness Customs and Excise Supervision (Directorate) General of Customs and Excise, 2022). Findings This confirm that line 2 has role strategic in support efficiency operational harbor as well as repair performance time demolish fit goods import.

2.4 *Container Freight Station* (CFS)

Container Freight Station (CFS) is facility hoarding while in use for activity consolidation and de- consolidation goods *Less than Container Load* (LCL). CFS works as place collection and separation cargo before or after the customs process, so that become point important in system logistics international. In the context of operational port, CFS is operated by the terminal or business entity a port that has permission

official from authority ports and agencies customs. CFS plays a role important in efficiency logistics Because allows delivery goods with small volume for combined (consolidation) to in One container, so that reduce cost transportation and improve effectiveness capacity container. On the other hand, for goods import, CFS also becomes place separation load (deconsolidation) before goods distributed to each owner.

2.5 *Less than Container Load* (LCL)

System transportation *Less than Container Load* (LCL) is one of the form service delivery goods through sea that allows a number of shippers combine the goods in One container Because amount cargo No fulfil capacity container full. System This give efficiency cost logistics and maximizing utilization room container for exporter and importer with the volume of the load small (Adawiyah & Poernomo, 2022).

In its operations, LCL activities involve various parties, including *freight forwarders,* terminal operators, as well as party customs. Good coordination between party necessary for the consolidation, documentation and audit processes customs walk in accordance procedures. Effectiveness supervision and control during the loading and unloading process LCL load has an effect significant to accuracy time delivery goods (Samiyono & Kwartama, 2024). Irregularities in the inspection process documents and delays moment *unstuffing* often become reason increasing *dwelling time* at the port.

2.6 LCL Container *Throughput*

Throughput container is one of the main indicator in measure performance harbor or container terminal. *Throughput* container describes the total volume of containers handled at the terminal in period certain, good activity demolish and load. *Throughput* usually stated in unit *Twenty-Foot Equivalent Unit* (TEUs) as size standard for compare performance between harbor.

In a way operational, *throughput* show level productivity a terminal in handle current incoming and outgoing containers. Increase *throughput* reflect efficiency operational, capacity service and power terminal competition against other ports. Therefore that, analysis *throughput* often used as reject measuring main in evaluate performance system logistics harbor.

3 Research Methodology

This study employs a quantitative descriptive approach. The objective of the research is to compare the logistics costs incurred by a company using Less than Container Load (LCL) services at the CFS Line 1 and Line 2 depots. The research was conducted at the Commercial and Business Development Department of a container terminal in Tanjung Perak, Surabaya. The study took place during the author's six-month onshore internship (Praktik Darat) from July to December 2024 and was continued during Semester VII.

The primary data include LCL container throughput at Line 1 for the 2021–2024 period, the LCL service procedures at Line 1, and the LCL container flow at the Container Freight Station (CFS). Secondary data consist of annual LCL throughput data during tariff status adjustments at Line 1, the 2024 warehouse tariff for Line 2, and the 2024 warehouse flow data for Line 2.

The tariff calculations in this study are based on the applicable official regulation, which was in force during the 2024 operational period. Since port tariffs are subject to periodic revisions, specifying the exact regulation number and year ensures the validity and reproducibility of the cost comparison analysis.

Data collection techniques include interviews, literature review, field observation, and document analysis. The data analysis methods applied in this research consist of trend analysis and comparative analysis.

4 Results and Discussion

4.1 Research result

1) Procedure LCL Services on CFS Line 1 AND Line 2

On service *Less than Container Load* (LCL) at *Container Freight Station* (CFS), operational process consists of from a number of type *job order*. Third *job order* the reflect stages main in management current goods start from container status changes, release container empty, until distribution goods results *stripping* to owner goods. In terms of overall. Here is three flowcharts that illustrate channel work on each LCL service in CFS line 1.

a. Job Order Status Change (RSL)
The flowchart shows the stripping process or expenditure LCL cargo from container, at the same time channel Change Status (RSL) required for change item status from container become LCL cargo. The process begins from the forwarder who sent document to Customer Service for verified. After the data is stated right, user service create RSL job orders via system. Officers at the Container Yard move container to the CFS area according to the manifest label, while CFS officers carry out the stripping and separation process goods based on VAK group, as well as recording location Customs and Excise give supervision of the stripping process. After goods finished issued, system change container status becomes empty (MTY) and the job order is declared finished.

b. Job Order Delivery MIM
MIM process or expenditure container empty is stages carried out after LCL container completed through the stripping or stuffing process in the CFS area. The "Delivery MTY Ex Stuffing–Unstuffing" flowchart illustrates channel activity start from arrival boat until container empty Finally go out through the import gate. This process aim ensure containers that have been No containing can quick issued from the terminal area to guard smoothness rotation and efficiency accumulation in the field.
Workflow started when boat berths and containers lowered use equipment demolish load. Next, the Internal Terminal Vehicle (ITV) transports container going to block accumulation. After placed in the field, container will through stripping and stuffing stages according to need CFS surgery. At this stage this, officer do checking and transferring cargo based on the manifest. After the stripping process is complete, the container Ready returned to empty status (MTY). Customer then create a MIM Job Order via system as base order Work For expenditure container. Based on the job order, the officer do relocation containers on blocks import as location beginning expenses. Designated trucking users service Then enter through *Gate In* imports, and officers field direct truck going to block in accordance information on the job slip. When the truck has be on site pickup, container empty lifted use *rubber tyred gantry* (RTG) through *the lift on* process. After the RTG confirms that container succeed loaded to the top trucks, vehicles towards *the Gate Out* area import for the terminal exit process. At stage end, truck allowed go out after verification end carried out by officers, and containers official recorded as go out in TOS system.

c. Job Order Delivery Cargo
Job Order Cargo Delivery is a process of expenditure goods from Container Yard (CY) in empty state after LCL container stripping activities that have been carried out at the CFS Warehouse towards party owner after all over condition administrative and customs fulfilled. In the context LCL service in Line 1, this process involving a number of actor main, namely users services (forwarder), owner goods, CFS officers, and Customs. Each party own their respective roles to ensure that expenditure goods walk orderly, accurate, and appropriate provision customs. The implementation of LCL cargo delivery is initiated by the user service through inputting Delivery Order (DO) data, DO PIN, and document supporters to in system until the data is recorded in the manifest. Owner goods Then create Cargo Expenditure Job Orders online with attach SPPB, SPPB sign, DO, and DO PIN. After that, the owner goods do management via SSM to obtain SPPB from Customs and print DO Order Delivery as basic expenditure process.
Stage furthermore carried out by CFS officers with do checking document through QR Code and CEIR scanning, as well as input number vehicles and identity driver. After the data is stated appropriate, officer print the Delivery Order and move goods from CFS warehouse to truck users services. Procedures This closed with confirmation expenditure items on the TOS system as well handover of the Delivery Note to users service as proof that cargo has official go out from the terminal area.

d. Procedure LCL Containers on Line 2
Handling process started since container dismantled from ships and stacked in the terminal's Container Yard (CY). At this stage beginning this, container Still is at in container terminal supervision and become part from activity demolish fit in the area port. Next, it is carried out inspection and completion document customs by Customs as condition main before container can issued

from terminal area.

After condition administration and customs fulfilled, the terminal provides agreement expenditure container. User service Then manage the expenditure process container from terminal area through the gate using fashion transportation land For sent towards the line 2 depot. Stage This mark transition of handling processes from terminal area towards facility external support harbor.

Upon arrival at the line 2 depot, the LCL container undergoes inspection seal and condition physique containers to ensure suitability between administrative data and conditions actual situation in the field. Containers furthermore placed while at the Container Yard (CY) depot before stripping process is carried out. The stripping process is activity demolition LCL cargo from in containers, which then followed with accumulation goods stripping results to warehouse depot line 2 based owner each item.

Stage end from procedure LCL cargo handling at line 2 depot is settlement administration expenditure goods and delivery of goods to owner goods or the designated party. After all over stages passed, the LCL cargo handling process at the line 2 depot is stated finished.

2) Throughput Trends LCL Container

a. Total LCL Container Throughput 2021–2024 and Growth Trends

Analysis results show existence fluctuations and trends improvement in total throughput of crates LCL packaging served. In addition to analysis descriptive, also calculated level growth annual compound (*Compound Annual Growth Rate* or CAGR) for give a clearer picture accurate about trend average growth during period observation.

Table 1 Annual throughput of LCL containers in 2021-2024

Total throughput of lcl container in 2021-2024	
Year	Total Throughput LCL container
2021	14
2022	19
2023	25
2024	23

Based on table said, the total throughput of LCL containers during the 2021–2024 period shows existence change from year to year. The data Then served return in form chart for give visual depiction of development of LCL container throughput in general more clear and easy to understood. Presentation chart intended for show pattern increase and decrease in LCL container throughput during period observation, so that make it easier reader in observe the current trend in a way overall. Calculation results show that the throughput of the box LCL packaging has grew by an average of 18.02% per year during 2021–2024 period. Growth rate This indicates existence increased volume of activity LCL cargo.

b. LCL Container Trends Based *on* Boxes

Data analysis in Boxes unit (physical volume) cargo) provide description confirmation about growth seen in TEU units. Boxes volume trends in general general show trend growth positive on the Grand Total, especially seen from volume surge in 2023 and steady volume high in 2024. This trend in line with results positive CAGR calculation, confirms that throughput increase instead only results from change method conversion, but rather supported by increased cargo volume physical LCL incoming.

Table 3. 2trend of container throughput unit boxes

LCL container box trends 2021-2024			
Year	LCL 20' feet	LCL 40' (Boxes)	Total (Boxes)
2021	2	6	8
2022	11	4	15
2023	7	9	16
2024	5	9	14

Amount LCL containers based on type sizes 20' and 40' during the 2021–2024 period shows existence variation from year to year. The data Then served in form chart for give visual depiction of development amount LCL containers based on size in a way more clear. Presentation chart This aim for make it easier reader in observe comparison between LCL containers measuring 20' and 40' and change the amount in each

year observation.

3) Comparative Analysis of LCL Service Rates Based on Standardized Assumptions (Cargo Volume, Dwell Time, and Commodity Type)

a. Comparison Component Cost

This section serves results quantitative data analysis about rates container handling charge service Less than Container Load (LCL) packaging for container measuring 20-feet and 40-feet. The data were analyzed based on two types location services, namely Line 1 and Line 2. Comparison rates between Line 1 and Line 2, namely as following:

Table 3. 320 feet Line 1 Rates

Invoice	Stevedoring	Day/shift	Price	Total
1	Stevedoring Dry (FCL 20'Feet)	1	Rp1.432.674	Rp1.432.674
	Total			Rp1.432.674
	Pajak (11%)			Rp157.594
	Total Amount			Rp1.590.268
2	Rubah Status (RSL)	Day/shift	Price	Total
	Lift On/Lift off	2	Rp286.000	Rp572.000
	Haulage	2	Rp91.000	Rp182.000
	Stripping	1	Rp250.000	Rp250.000
	Biaya penumpukan (FCL)	1	Rp81.600	Rp81.600
	Administrasi	1	Rp20.000	Rp20.000
	Total			Rp1.105.600
	Pajak (11%)			Rp121.616
	Total Amount			Rp1.227.216
3	Delivery	Day/shift	Price	Total
	Stacking Import Empty	3	Rp13.600	Rp40.800
	Lift On Empty	1	Rp108.800	Rp108.800
	Administrasi	1	Rp20.000	Rp20.000
	Total			Rp169.600
	Pajak (11%)			Rp18.656
	Total Amount			Rp188.256
Total biaya keseluruhan proses bongkar petikemas LCL 20' feet				Rp3.005.740

Handling charge rates for chest pack LCL 20-feet at Line 2 location (Rp3,748,718.50) far away more expensive than at the Line 1 location (Rp. 3,005,740.00). The difference cost amounting to Rp. 742,978.50 emphasize that, although size chest packaging same, displacement location handling from Line 1 (near port) to Line 2 (outside port) triggers addition component significant costs, such as cost transportation (Trucking) and handling chest pack empty (Empty Container).

Table 4. 42 Rates

Invoice	Stevedoring	Day/shift	Price	Total
1	Stevedoring Dry (FCL 20'Feet)	1	Rp1.432.674	Rp1.432.674
	Total			Rp1.432.674
	Pajak (11%)			Rp157.594
	Total Amount			Rp1.590.268
2	Delivery	Day/shift	Price	Total
	Biaya penumpukan (FCL)	1	Rp123.750	Rp123.750
	Lift On/Lift off	2	Rp286.000	Rp572.000
	Administrasi	1	Rp20.000	Rp20.000
	Total			Rp715.750
	Pajak (11%)			Rp78.733
	Total Amount			Rp794.483
3	Lini 2	Day/shift	Price	Total
	Trucking	1	Rp250.000	Rp250.000
	Stripping	1	Rp150.000	Rp150.000
	Lift On/Lift off	1	Rp108.800	Rp108.800
	Biaya penumpukan (FCL)	1	Rp150.000	Rp150.000
	Delivery Barang	1	Rp170.000	Rp170.000
	Administrasi	1	Rp50.000	Rp50.000
	Total			Rp878.800
	Pajak (11%)			Rp96.668
	Total Amount			Rp975.468
4	Relokasi Empty Container	Day/shift	Price	Total
	Repo MTY	1	Rp300.000	Rp300.000
	Administrasi	1	Rp50.000	Rp50.000
	Total			Rp350.000
	Pajak (11%)			Rp38.500
	Total Amount			Rp388.500
Total biaya keseluruhan proses bongkar petikemas LCL 20' feet				Rp3.748.719

The results of the detailed analysis confirm that container handling charge rates LCL packaging is affected in a way significant by two variables main: location handling (Line 1 or Line 2) and capacity chest pack (20-feet or 40-feet). Statistical data summary give description comprehensive about difference cost in a way overall:

Table 5. Comparison handling charge rate

		Handling Charge		
		Mean	Maximum	Minimum
Location	Line 1	Rp 3.702.407,38	Rp 4.399.074,75	Rp 3.005.740,00
	Line 2	Rp 4.691.941,63	Rp 5.635.164,75	Rp 3.748.718,50

40-feet *handling charge* rate at the Line 2 location (Rp. 5,635,164.75) is also significant is taller compared to Line 2 (Rp4,399,074.75). The difference cost reached IDR 1,236,090.00. The 40-foot container on Line 2 registered cost *handling charge* highest. Increase difference This indicates that cost handling additions in Line 2 to more expensive when involving chest pack capacity bigger.

4.2 Discussion

This chapter is structured to address the three research questions: (1) the LCL service procedure at CFS Line 1, (2) the throughput trend of LCL handling during the 2021–2024

period, and (3) a comparison of LCL service costs between Line 1 and the Line 2 depot, including the factors influencing user preferences. Each issue is discussed systematically based on field observations, operational data, and the analyses conducted.

LCL services at CFS Line 1 involve a sequence of administrative and operational processes intended to ensure the smooth transfer of goods from importers to final consignees. Based on observations, the procedure is grouped into three job order types: Job Order Change Status (RSL), MIM (Empty Container Release), and Cargo Delivery (Ex-Stripping LCL). These processes involve multiple actors, including FCL Over Gross, CFS Checker, Terminal Operating System (TOS) officers, and CFS administration staff, each performing roles according to established work flows.

Based on throughput data, LCL handling volume increased during 2021–2024. Descriptive analysis and Compound Annual Growth Rate (CAGR) calculations indicate that throughput rose from 14 units in 2021 to 23 units in 2024, resulting in an average annual growth rate of 17.996%. This growth suggests increasing demand for consolidation and deconsolidation services, as well as improved terminal capacity to support CFS operations.

The comparative analysis shows that the cost structure of LCL services at CFS Line 1 is lower than at the Line 2 depot. The average LCL service rate at CFS Line 1 is Rp 3,702,407.38, while the Line 2 depot rate is Rp 4,691,941.63, with a difference of approximately 26%–30%. However, to strengthen the academic explanation, this cost gap should not be treated as purely a "nominal price difference," because it is driven by structural regulatory and operational mechanisms.

Operationally, CFS Line 1 is integrated into terminal operations and is subject to stricter time controls, yard/warehouse space allocation rules, and standardized service packages that are closely linked to terminal operating windows and equipment utilization. These constraints can create potential additional charges when service users exceed free-time limits or when stripping, inspection, and delivery activities must follow terminal scheduling priorities. In contrast, Line 2 depots typically operate with more flexible warehouse-based workflows, allowing gradual cargo retrieval and more adjustable inspection and handling times. This flexibility reduces the operational risk borne by the customer (e.g., avoiding time-pressure penalties), even when the base tariff is higher.

Regulatorily, the difference may also arise from different tariff bases and service components. Terminal CFS tariffs are commonly structured according to port service tariff frameworks and bundled service items, whereas depot/warehouse tariffs can be structured under commercial warehousing schemes with different cost components (labor, space rental, equipment use, and administrative fees). In addition, differences in customs treatment and control procedures can affect cost and user decisions. For example, if inspection intensity, documentation flow, or customs coordination is operationally smoother at the depot (or conversely stricter at the terminal), users may perceive the depot as offering more certainty and fewer indirect costs such as delays, re-handling, or demurrage-related risk.

This is why, even though Line 1 is nominally more cost-competitive, service users may still prefer Line 2 because of non-price factors—especially operational flexibility and cost predictability. Users tend to value the ability to schedule stripping and inspection activities more freely and to collect cargo in stages based on their internal distribution needs, as long as customs provisions and warehouse operational rules are met. Moreover, depot costs are often perceived as more predictable because they are agreed upfront as a warehouse service package, whereas terminal-based services may be associated with variable add-on costs linked to time accumulation limits, peak congestion, and operational density.

In summary, the findings confirm that LCL handling decisions are not determined solely by the lowest tariff. The observed cost difference between Line 1 and Line 2 should be interpreted through the lens of tariff-setting regimes, operational constraints, customs-related workflow, and service flexibility, which collectively shape user preferences and the true "total logistics cost" experienced by customers.

5. Conclusion

Based on results research and discussion about procedure LCL services, throughput trends, as well as comparison cost service between Line 1 and Line 2, then obtained a number of conclusion as following :

1. Procedure LCL Services on Line 1 LCL Services on Line 1 are implemented through three types of job orders that are mutually exclusive related, namely : Job Order Status Change (RSL), MIM (Empty Container Release), Delivery Cargo (Ex-Stripping LCL). Third procedure the involving a number of party operational such as FCL Over Gross, CFS Checker, CFS Admin, and TOS officers. Each party operate function administration and checking physique through channel structured work. The whole process shows that LCL operations at CFS LINE 1 have been walk systematic and supportive smoothness current goods import in amount partial.
2. LCL Throughput Trends for the Period 2021–2024 Development of LCL throughput during the 2021–2024 period shows trend increased. Throughput increased from 14 units in 2021 to 23 units in 2024. Based on CAGR calculation, obtained level growth of 17.996% per year, which indicates improvement performance as well as increasing activity LCL services on Line 1. This trend show that request to LCL services are experiencing sufficient growth significant.
3. Comparison Cost LCL Service between CFS LINE 1 and Warehouse Line 2 Analysis Results comparative show that cost LCL services on Line 1 more low compared to warehouse line 2. The average rate charged by CFS LINE 1 for CFS services is Rp. 3,702,407.38, while warehouse line 2 has average rate of Rp 4,691,941.63. Difference cost show that warehouse services line 2 is about 26%–30% more expensive. confirm that CFS LINE 1 is more competitive in matter efficiency cost so that can become more choices economical for users service.

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